#### ABSTRACT

A channel quality report accuracy measurement apparatus and accuracy measurement method are provided that correctly measure the accuracy of channel quality reported from a communication apparatus. A scheme control section (140) stores coding rates and modulation schemes corresponding to CQIs, and specifies the transmission scheme corresponding to a fixed CQI reported 10 from a CQI statistical processing section (230). A CQI decoding section (220) decodes a reported CQI contained in a received signal. The CQI statistical processing section (230) performs statistical processing of reported CQIs corresponding to test data transmitted prior to an accuracy measurement test, and reports the most 15 frequently reported CQI to the scheme control section (140) as a fixed CQI. A PER calculation section (260) calculates the PER in the communication apparatus from the reported CQI and Ack/Nack corresponding to test data 20 transmitted in accordance with the fixed CQI. A determination section (270) performs threshold value determination for the PER for each reported CQI value, and outputs the reported CQI scheme determination result.

[FIG.1]

REPORTED CQI

[FIG.2]

- 5 100: TRANSMITTING SECTION
  - TEST DATA OR ACCURACY MEASUREMENT DATA
  - 110 CODING SECTION
  - 120 MODULATION SECTION
  - 130 RADIO TRANSMITTING SECTION
- 10 140 SCHEME CONTROL SECTION
  - 200: RECEIVING SECTION
  - 210 RADIO RECEIVING SECTION
  - 220 CQI DECODING SECTION
  - 230 CQI STATISTICAL PROCESSING SECTION
- 15 240 ACK DECODING SECTION
  - 250 ACK PROCESSING SECTION
  - 260 PER CALCULATION SECTION
  - 270 DETERMINATION SECTION

DETERMINATION RESULT

20 300 ANTENNA DUPLEXING SECTION

[FIG.3]

- 400 RADIO RECEIVING SECTION
- 410 CHANNEL QUALITY MEASUREMENT SECTION
- 25 420 CQI GENERATION SECTION
  - 430 MULTIPLEXING SECTION
  - 440 MODULATION SECTION
  - 450 RADIO TRANSMITTING SECTION

460 ANTENNA DUPLEXING SECTION
RECEIVE DATA
TRANSMIT DATA

5 [FIG.4]

START

ST1000 CQI STATISTICS ACQUISITION

ST1100 TRANSMISSION METHOD SELECTION

ST1200 PER CALCULATION FOR EACH CQI

10 ST1300 PER CORRESPONDING TO FIXED CQI ≤ THRESHOLD VALUE

Α?

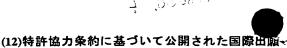
ST1400 PER CORRESPONDING TO ONE LEVEL HIGHER CQI  $\leq$ 

THRESHOLD VALUE B?

ST1500 PER CORRESPONDING TO ONE LEVEL LOWER CQI ≥ THRESHOLD

15 VALUE C?

END



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器産業株式会社 (MATSUSHITA ELECTRIC INDUS-

TRIAL CO., LTD.) [JP/JP]; 〒571-8501 大阪府門真市

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2003年1月24日(24.01.2003) JР (72) 発明者; および

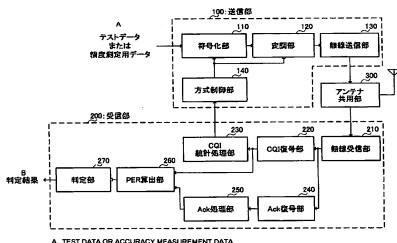
大字門真1006番地 Osaka (JP).

(75) 発明者/出願人 (米国についてのみ): 篠井 健一郎 (SHINOI, Kenichiro) [JP/JP]; 〒233-0013 神奈川県 横 浜市港南区丸山台2-37-37-302 Kanagawa (JP). 鈴木 秀 俊 (SUZUKI, Hidetoshi) [JP/JP]; 〒239-0847 神奈川県 横須賀市 光の丘6-2-803 Kanagawa (JP).

[続葉有]

(54) Title: LINE QUALITY REPORT ACCURACY MEASUREMENT DEVICE AND ACCURACY MEASUREMENT **METHOD** 

#### (54) 発明の名称:回線品質報告の精度測定装置および精度測定方法



A...TEST DATA OR ACCURACY MEASUREMENT DATA

100...TRANSMISSION SECTION
110...ENCODING SECTION

120...MODULATION SECTION 130...RADIO TRANSMISSION SECTION

140...METHOD CONTROL SECTION 300...ANTENNA SHARING SECTION 200...RECEPTION SECTION

B...JUDGMENT RESULT
230...CQI STATISTIC PROCESSING SECTION
220...CQI DECODING SECTION

210...RADIO RECEPTION SECTION 270...JUDGMENT SECTION

260...PER CALCULATION SECTION

250...Ack PROCESSING SECTION 240...Ack DECODING SECTION

(57) Abstract: A line quality report accuracy measurement device and accuracy measurement method capable of accurately measuring the accuracy of line quality reported from a communication device. A method control section (140) contains an encoding ratio corresponding to the CQI and a modulation method and specifies a transmission method corresponding to the fixed CQI reported from a CQI statistic processing section (230). A CQI decoding section (220) decodes a report COI contained in the reception signal. The CQI statistic processing section (230) statistically processes the report CQI corresponding to the test data transmitted prior to an accuracy measurement test and notifies the CQI which has been reported most frequently as a fixed COI to the method control section (140). A PER calculation section (260) calculates PER in the communication device according to the report CQI and Ack/Nack corresponding to the test data transmitted in accordance with the fixed CQI. A judgment section (270) performs a threshold value judgment for PER for each report CQI value and outputs the judgment result of the accuracy of the report CQI.

(57) 要約: 通信装置から報告される回線品質の精度を正確に測定する回線品質報告の精度測定装置および精度測 定方法。方式制御部(140)は、CQIに対応する符号化率および変調方式を記憶しており、CQI統計処理部 (230) から通知される固定CQIに応じた送信方式を指定する。CQI復号部(220) は、受信信号に含ま れる報告CQIを復号する。CQI統計処理部(230)は、精度測定試験に先立って送信されたテストデータに 対応する報告CQIを統計処理し、最も頻繁に報告されたCQIを固定CQIとして方式制御部(140)へ通知 する。P



- (74) 代理人: 鷲田 公一 (WASHIDA, Kimihito); 〒206-0034 東京都 多摩市 鶴牧1丁目24-1 新都市センタービル 5 階 Tokyo (JP).
- (81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
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ER算出部(260)は、固定CQIに応じて送信されたテストデータに対応する報告CQIとAck/Nackとから、通信装置におけるPERを算出する。判定部(270)は、報告CQIの値ごとのPERに対して閾値判定を行い、報告CQIの精度の判定結果を出力する。